

**Title 10 – Department of Natural Resources**  
**Division 23 – [Geological Survey and Resource Assessment Division]**  
**Division of Environmental Quality**  
**Chapter 3 – Well Construction Code**

**RULE AMENDMENT**

**10 CSR 23-3.100 Sensitive Areas**

*PURPOSE: This amendment requires more stringent well drilling standards to be utilized in areas where groundwater is contaminated with contaminants of concern or degradation products in the Weldon Spring, St. Charles County, vicinity. Contaminants of concern at the U.S. Army Corps of Engineers (COE) Main Site include: trinitrotoluene (TNT) and dinitrotoluene (DNT). Department of Energy (DOE) contaminants of concern at the Chemical Plant area include 2, 4, 6-TNT, 2, 4-DNT, 2, 6-DNT, dinitrobenzene (1, 3-DNB), nitrobenzene (NB), nitrate, uranium, and trichloroethylene (TCE). Only uranium and 2, 4-DNT are contaminants of concern at the DOE Quarry. It also changes the name of the Division.*

*PURPOSE: This rule sets specific additional construction standards for sensitive areas shown on the map that have been designated on the basis of either naturally occurring problems caused by unique groundwater chemistry, anthropogenic contamination, or because they are located in a fragile groundwater environment which is experiencing rapid population growth or urbanization.*

**(8) Special Area 4. Portions of St. Charles County west of the city of Weldon Spring shall be listed as Special Area 4 (Figures 7D included herein) due to the contamination of portions of the aquifer by one (1) or more of the following chemicals of concern: trinitrotoluene (TNT) and dinitrotoluene (DNT) at the U.S. Army Corps of Engineers (COE) site, 2,4,6-TNT, 2,4-DNT, 2,6-DNT, dinitrobenzene (1,3-DNB), nitrobenzene (NB), nitrate, uranium, and trichloroethylene (TCE) at the Department of Energy (DOE) Main Site, uranium, and 2,4-DNT, at the DOE Quarry, or other contaminants of the National Public Drinking Water Regulations (NPDWR). In this area it is necessary to utilize more stringent well construction standards for new wells that are drilled into the aquifer and to limit the deepening of existing upper aquifer wells.**

**(A) The division shall be consulted before constructing a new well in Special Area 4. The division will provide specific guidance on well drilling protocol, construction specifications and groundwater sampling on a case-by-case basis. The division must provide written approval for all new heat pump wells prior to construction.**

**(B) Before deepening a well in Special Area 4, groundwater sampling and analysis for the chemicals of concern must be conducted by qualified and properly trained individuals and the data submitted within sixty (60) days of the sampling event by the well installation contractor to the division. The division must provide written**

approval for the deepening of all new wells in Special Area 4. Wells that have been sampled and analyzed and are contaminated with chemicals of concern exceeding Maximum Contaminant Levels (MCLs), Action Levels (ALs), and/or remediation goals included in the DOE/COE Record of Decision (ROD) for the Weldon Spring sites shall not be deepened.

(C) In addition to specific instructions that are provided by the division pursuant to 10 CSR 23-3.100(8)(A) and (B), the following must be performed at all new wells installed in Special Area 4:

1. All new and deepened old water wells in Special Area 4 shall be constructed with a sampling port or tap within ten feet (10') of the wellhead. Water must be purged from the sampling port prior to collection of a sample.
2. After proper well development, water from all new wells located in Special Area 4 shall be sampled and analyzed for the chemicals of concern, as determined by the division. Qualified and properly trained persons must complete sample collection. Sampling qualifications and training requirements will be determined in advance of sampling by the division and approval will be issued in written format. In order to document sampling has occurred, a copy of the chain of custody form shall be submitted by the pump installation contractor to the division within sixty (60) days of pump installation.
3. The data report from all analyses shall be made available by the pump installation contractor to the division and the well owner within sixty (60) days of the sampling event.

(D) Properly constructed new or deepened wells that, upon sampling and analysis, are contaminated at levels exceeding MCLs, ALs, and/or remediation goals included in the DOE/COE ROD for the Weldon Spring sites shall:

1. Be plugged full-length using high-solids bentonite slurry, six percent (6% ) bentonite cement or neat cement grout placed under pressure via tremie pipe which extends to within twenty-five feet (25') of the bottom of the borehole. Grout shall extend from the bottom of the borehole to within two feet (2') of land surface. Prior to plugging all pumps and debris must be removed from the wells. Any liner must be removed or perforated if possible. Casing must be cut at least 3 feet (3') below ground surface. A registration report and fee (if required) must be submitted within 60 days of abandonment.; or
2. With prior approval from the division, the well owner shall be allowed to install a water treatment system that is designed to properly treat the chemical(s) of concern. The well shall not be used for human consumption until sampling and analysis demonstrates that the water treatment system reduces contaminant levels below MCLs, ALs, and/or remediation goals included in the DOE/COE ROD for the Weldon Spring sites for all chemicals of concern. The division shall be provided a copy of the post-treatment

**analytical data by the pump contractor within sixty (60)days of the sampling event.**

**(E) Notwithstanding these provisions, the Federal Government does not waive its rights and authority under Federal law, regulations, or executive order within the boundaries and applicable jurisdiction of Federal property.**

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